

F49.01 TERMINOLOGY

F3682 — Standard Terminology for Goods Movement Process (GMP) Precise Foundational Definitions

WK87871 — Standard Terminology for Supply Chain Key Terms

WK88617 — Standard Terminology for NSAC Recommended Minimum Required Data Set

WK88966 — Standard Terminology for Supply Chain Stakeholders

WK90204 — Standard Terminology for DOT FLOW Initiative Data Elements

WK95024 — Standard Terminology for Supply Chain Location

F49.04 RECOMMENDED PRACTICES, GUIDES, AND SPECIFICATIONS

WK87207 — Standard Practice for Container Availability

WK92031 — Standard Guide for the Goods Movement Process Statuses

F49.05 ENABLING TECHNOLOGY

WK94483 — Standard Guide for Developing Evaluation Rubrics to Support Ontology-Based Classification of Emerging Technologies in the Digital Supply Chain

F49.06 CLARITY, MEASUREMENT, AND AUTHENTICITY OF INFORMATION

D8558 — Standard Guide for Verification of a Certificate of Authentication Used to Track Products through Their Supply Chain by Utilizing Blockchain Technology

TECHNICAL REPORT

HOW CAN YOU PARTICIPATE?

ASTM Committee F49 on Digital Information in the Supply Chain was formed in Oct of 2022. F49 meets twice a year in April and October with about 40 members attending over two days of technical meetings. The Committee, with a current membership of 100, will develop standards to be published in the Annual Book of ASTM standards, Volume 10.04. F49 has 6 technical subcommittees that maintain jurisdiction over these standards.

WHY JOIN?

As an active member of F49 – just a few benefits you will receive when you join ASTM:

- Network with other professionals worldwide;
- Have direct input into the development of new and revised standards;
- Participate in informational webinars;
- Receive a free volume of the *Annual Book of ASTM Standards*;
- Enjoy discounts on all ASTM publications;
- Receive free subscription to ASTM Standardization News and ASTM eNews; and
- Benefit from reduced attendance fees at ASTM symposia and technical workshops.

You will also receive a free volume of the Annual Book of ASTM Standards, receive free subscriptions to *ASTM Standardization News* and *eNews*, and benefit from reduced attendance fees at ASTM symposia and workshops. The annual fee to become an ASTM member is \$115 USD.



ADVANCING STANDARDS
TRANSFORMING MARKETS



ADVANCING STANDARDS
TRANSFORMING MARKETS

Committee F49 on Digital Information in the Supply Chain

Helping Our World Work Better®

HELPING OUR WORLD WORK BETTER

Advancing standards and transforming markets, we touch every part of everyday life – helping our world work better.

Over 12,000 ASTM standards operate globally. Defined and set by us, they improve the lives of millions every day. Combined with our innovative business services, they enhance performance and help everyone have confidence in the things they buy and use.

ASTM INTERNATIONAL HEADQUARTERS

100 BARR HARBOR DRIVE
P.O. BOX C700
WEST CONSHOHOCKEN, PA 19428-2959
USA

Tel +1.610.832.9500

Web go.astm.org

April 2025



www.astm.org/JOIN

MISSION

ASTM International Committee F49 is focused on providing the data standards necessary for next generation efficiencies in the global supply chain process covering all major modes of transport: Ocean Full Container, Ocean Less-Than-Container, Short-Sea, Road, Rail and Air. Supply Chains face poor performance of logistics resulting from massive problems and disruptions caused by the current inadequate communication processes. F49 will deliver standardized common language, common processes, and information exchanges that will remove roadblocks to better performance of logistics and Supply Chains.

SCOPE

The promotion of knowledge, stimulation of research, and the development of standards and specifications, formulation of definitions and terminology, and development of recommended practices and guides related to the sharing and use of digital information in the supply chain. The Committee will coordinate with any other ASTM Technical Committees and other standards development organizations (SDO) with related interests and ensure that the standards are technology and vendor neutral, and the standards development process is consistent with WTO principles.



Visit us on LinkedIn
go.astm.org/F49-LinkedIn-group



Visit us on YouTube
www.youtube.com/watch?v=4_TrGVIMJ0g

Learn more
www.astm.org/get-involved/technical-committees/committee-f49

TECHNICAL SUBCOMMITTEES

F49.01 Terminology

The scope of this subcommittee is to assist other F49 Subcommittees in formalizing the definitions of terms used in communication of the digital information of the supply chains to create harmonized communication between systems, across geographies, modes, and users.

F49.02 Interoperability

The scope of this subcommittee is to develop standards enabling interoperability of heterogeneous supply chains, logistics, and transportation technologies on events related to transportation starting with container availability.

F49.03 Essential Data Elements

The scope of this subcommittee is to utilize Classifications, Practices, and Guides to establish the essential data elements that enable operability to manage a global and or domestic supply chain. The data elements are categorized into the following stages:

200-300

Posted to Pre-Booked

300-400

Pre-Booked to Booked

400-500

Booked to En Route

400-500

Booked to En Route

700-800

Delivered to Invoiced

800-900

Invoiced to Archived

F49.04 Recommended Practices, Guides, and Specifications

The scope of this subcommittee is to identify processes and Use Cases to develop recommended Practices, Guides and Specifications in the end-to-end Supply Chain from Seller to Buyer of the Goods across all modes of transports and passing through any nodes/hubs in the transport and

logistics networks. The goal is to increase the flow of cargo both in terms of volume and speed and to improve communication among all stakeholders.

The Use Cases will include but are not limited to:

- FMC (Federal Maritime Commission) MDTI related Use Cases
- Earliest Return Date for containers
- Empty Container Returns (and any related Dual Moves)
- Container Availability
- Full Container Load and Less-than-Container Load scenarios

Tracking and Tracing independent of mode of transport end-to-end from Seller to Buyer; includes scenarios for all types of cargo (container, bulk, parcels, packages, pallets etc.).

Digitalization of Documentation (e.g., Bills of Lading, Waybills, Dispatch Notes) related to the end-to-end journey of Goods.

Facilitating imports and/or exports in general or for specific categories of goods e.g., medical products, Food, Perishables, Horticulture, etc.

F49.05 Enabling Technology

The scope of this sub-committee is the following:

- Support the overall F49 Committee and the other subcommittees;

- Identify the key technologies that are present today within the scope;
- Make a determination of which technologies are worth considering for assessment;
- Assess other technologies that are emerging and determine which have merit and pragmatically which appear to have substantial likelihood of adoption. Examples of technologies to be considered may include: Blockchain, API, eBL, IoT, Knowledge Graphs, AI.

F49.06 Clarity, Measurement Accuracy, and Authenticity of Information

The scope of this subcommittee is to develop standards for the supply chain to ensure the clarity, accuracy, and authenticity of information, including measurements and supporting data relating to efficiency, security, health and safety, identity, product characteristics or their related processes and production methods, conformity assessment, and ESG factors, as well as related claims.

F49.91 Long Range Planning

The scope of this subcommittee is to plan for, and provide a forum to address, the future needs or concerns of all F49 committees and activities, including, but not limited to, consideration of individual participation, industry growth or viability, obsolete or new technologies, and a liaison for academia.

